



atlanta

earth day celebration

arms around atlanta – 2008

Stepping Lightly in Atlanta Awards Contest



This Earth Day, how lightly will YOU step?

Calling for Entries!



Our **ecological footprint** tells us how much land and water we need to live. If it's too big, it means there may not be enough to go around. That's why it's so important to *step lightly*—for Atlanta and for our planet.



This **Earth Day**, tell us how lightly YOU will step by submitting a project that shows how you have reduced your ecological footprint in your home, classroom, school or community.



Go to **www.KeepAtlantaBeautiful.org** for contest details, rules and entry forms. Open to all students, K-12—includes public and private schools, home schools, clubs and organizations in the Atlanta metropolitan area.



Deadline is March 28, 2008



2008
Stepping Lightly in
Atlanta Awards Contest is
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In Partnership with:



Go For The Green
ATLANTA RECYCLES



Keep Atlanta Beautiful's Arms Around Atlanta ~ Earth Day Celebration is calling for entries for the 2008 Stepping Lightly in Atlanta Awards Contest, an environmental stewardship-based contest for individual students or student groups in grades K-12.

The goal of the Stepping Lightly in Atlanta Awards Contest is to empower students to be stewards and advocates for a sustainable environment in their own community. Students are invited to submit entries for model projects that demonstrate how they have reduced their ecological footprint in their home, class, school or community. Students can choose a variety of environmental issues to concentrate on, see "Environmental Topics and Resources" page or visit **www.KeepAtlantaBeautiful.org** for ideas.

Instructions for Entry



Fill out the entry form. Enter as an **Individual or a Group**. "*Groups*" include *classes, clubs, or youth organizations*. Complete the appropriate Entry Form and be sure to answer each question (typed or legibly written in ink.) Have an adult fill out the Participation & Media Release Form.



Choose an environmental issue to focus on. Study the issue and learn why it is important in Atlanta. See the "Resources" section in this package or www.KeepAtlantaBeautiful.org for project ideas. The competition encourages projects that are innovative, action-oriented, place-based (your community), successful and repeatable. Be sure to review the "Judging Criteria" below.



Submit your entry and all supporting material: Entries must be RECEIVED by Friday, March 28 at 4:30 pm, by mail, email or by hand-delivery. Entries received past the deadline, lost in the mail or email are not the responsibility of Keep Atlanta Beautiful and will not be considered.

Contest Details

Eligibility: Participation is open to **all students aged K-12th grade in the Atlanta metropolitan area**. This includes: public and private schools, home schools, clubs and organizations.

Supporting materials: Entrants are encouraged to include supporting materials such as videos, photographs and artwork. While we encourage electronic submissions via email and on CD's, you may submit artwork and brochures in hard copy. However, the entire application must be submitted all together. All entries become property of Keep Atlanta Beautiful.

Judging Criteria:

1. Project Choice: Student(s) chose a project that creatively addressed an environmental issue in Atlanta.
2. Project Success: Student(s) were able to show how their project helped improve Atlanta's environment.
3. Student Involvement and Understanding: Student(s) led the planning, completing and documenting for the project.
4. Outreach: Student(s) strived to educate others in their community about the issue.
5. Presentation: Student(s) provided a clear, concise overview of the project with supporting materials.

Prizes: Winners will be notified by **April 14, 2008**. Judges will select a Grand Prize Winner, as well as category winners for K-5th grade and 6th-12th grade. In addition, winning entries will be displayed at the Arms Around Atlanta ~ Earth Day Celebration on April 19th. All students whose entries are submitted will receive a certificate. Videos, photographs and artwork submitted may be used on the City's public service station, Channel 26.

Please visit **www.KeepAtlantaBeautiful.org** for additional resources and Georgia Performance Standards suggestions.



Eligible applicants include all K-12th grade students at public and private schools, classes, home schools, clubs and organizations in the Atlanta metropolitan area. Make additional copies of this form if needed.

Please check one: ☐ **K- 5th grade** ☐ **6th-12th grade**

Name of sponsoring adult:

Sponsor phone number:

Sponsor email:

Sponsor mailing address (street, city, state, zip):

Name of school or organization:

Answer the following questions on a separate sheet of paper. Limit of 2 pages, total. Entrants are encouraged to include supporting materials. While we encourage electronic submissions via email or on CD, you may submit artwork and brochures in hard copy. However, the entire application **must** be submitted all together.

1. Describe your project. *What was the environmental issue? What were the project goals? Where did the project take place? What was the time involved?*

2. What was your role in this project?

3. How does your project benefit Atlanta's environment and your community? Be specific! *What did your project improve? How do you know that you made a difference? How did you meet your project goals?*

4. To what extent did your project involve the community? How did you communicate your message to the community? *For example: assemblies, bulletin announcements, videos, brochures, newsletters, posters, skits, plays, speakers, articles and letters to the editor.*

5. Can this project be continued or repeated in the future? Please explain.

6. What have you learned from doing this project?

Mail completed form (and supplemental info or artwork) to:

Keep Atlanta Beautiful: Stepping Lightly in Atlanta Awards Contest
850 Piedmont Ave. Suite 3112
Atlanta, GA 30308

**DEADLINE: Friday
March 28, 2008** Entries
must be **RECEIVED** by
mail, email or hand-
delivery by Friday, March
28 at 4:30 pm.

Or email completed form (and supplemental info or artwork) to: atlsteplight@gmail.com

Questions? Call Peggy Denby at 404-249-5853 or email peggy.denby@KeepAtlantaBeautiful.org.



Student Entry Form: **GROUP**

Eligible applicants include all K-12th grade students at public and private schools, classes, home schools, clubs and organizations in the Atlanta metropolitan area. Make additional copies of this form if needed.

Please check one: ☐ **K- 5th grade (Group)** ☐ **6th-12th grade (Group)**

Number of participating students: _____

Name of sponsoring adult: _____

Sponsor phone number: _____

Sponsor email: _____

Sponsor mailing address (street, city, state, zip) _____

Name of school or organization: _____

Answer the following questions on a separate sheet of paper. Limit of 2 pages, total.

Entrants are encouraged to include supporting materials. While we encourage electronic submissions via email or on CD, you may submit artwork and brochures in hard copy. However, the entire application **must** be submitted all together.

1. Describe your project. *What was the environmental issue? What were the project goals? Where did the project take place? What was the time involved?*

2. What role did the students play in this project?

3. How does your project benefit Atlanta's environment and your community? Be specific! *What did your project improve? How do you know that you made a difference? How did you meet your project goals?*

4. To what extent did your project involve the community, and how did you communicate your message to the community? *For example: assemblies, bulletin announcements, videos, brochures, newsletters, posters, skits, plays, speakers, articles, and letters to an editor.*

5. Can this project be continued or repeated in the future? Please explain.

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(This form must be completed and returned with the Entry Form)

My child _____ (print name) at _____ (name of school/organization) will participate in the Stepping Lightly in Atlanta Awards Contest.

Student's Grade (please check one): ☐ K-5th ☐ 6-12th

Name of School:

Name of Teacher:

Print Name of Parent/Legal Guardian:

Address, City, State and Zip Code:

Email Address:

Phone Number:

Alternate number:

Best time to reach you:

Signature of Parent or Legal Guardian

DATE

Media Release for Minors

As the parent or legal guardian, I give Keep Atlanta Beautiful permission to use the photographs, video footage, writings or drawings submitted in the student's application and photographs of my child taken in conjunction with the Arms Around Atlanta ~ Earth Day Celebration for promotional purposes and for educational purposes. I understand that I will not receive any compensation for the use of such photographs.

Signature of Parent or Legal Guardian

DATE

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Waste Reduction: Reduce, Reuse and Recycle

In 2006, United States residents, businesses, and institutions produced more than 251 million tons of garbage, which is approximately **4.6 pounds of garbage per person per day!** That's a lot of waste! You can help make a positive change by consuming and throwing away less, reusing products you already have, and recycling as much as possible.

Project Ideas:

- There are many different projects that a class or individual can implement. Ideas for curriculum and activities are at: epa.gov/epaoswer/education/teach_curric.htm
- Materials specific for middle school are located within the "Make a Difference Middle School Kit," which can be downloaded at: <http://www.epa.gov/epaoswer/education/mad.htm>, or ordered at: www.epa.gov/nscep/.
- In Georgia, food waste makes up the largest fraction of disposed waste (learn more about the state of waste in Georgia by checking out the GA Statewide Waste Characterization Study: www.dca.state.ga.us/development/EnvironmentalManagement/publications/GeorgiaMSWCharacterizationStudy.pdf). As an alternative to going in the trash, create a compost bin (www.epa.gov/compost/)!
- Materials on solid waste management and education can be found at the following EPA websites: <http://www.epa.gov/teachers/waste.htm>, www.epa.gov/epaoswer/education/index.htm, and www.epa.gov/epaoswer/education/teens/pdf/school.pdf

Energy/Alternative Transportation

Energy plays an important role in living lighter on the earth. When fossil fuels are burned for energy they emit "greenhouse gases," which become trapped in our atmosphere. These gases contribute to an overall warming of the earth, or climate change (<http://epa.gov/climatechange/index.html>). Transportation also plays a big part in the amount of energy that we consume and the amount of greenhouse gasses that we emit. In 2006, the Department of Energy estimated that the transportation used 28% of the total energy consumed, by sector. By finding alternative modes of transportation, like riding bikes, walking, or taking a bus or train, we can lesson our transportation-related impacts.

Project Ideas:

- Project ideas, including how to perform an emissions inventory at your school, can be found at: <http://epa.gov/climatechange/wycd/school.html>.
- The website, "Kilowatt Ours," has energy-related curriculum (<http://www.kilowattours.org/curriculum/>).
- Programs like the "Walking School Bus" (www.walkingschoolbus.org/) allow you to be healthy and live lighter. Maybe you can start something similar at your school?

Indoor Air Quality (IAQ)

Indoor air pollution can be 2 to 5 times as great as outdoor air pollution. In schools, poor indoor air quality (IAQ) can lead to absenteeism, poor concentration, decreased productivity and performance, increased respiratory illnesses and the presence of asthma triggers. IAQ is something every school, teacher, parent and student should be concerned about!

Project Ideas:

- Locate contributors to indoor air pollution in your school or recreation center. Develop a plan to address those factors or add features to the space that promote good air quality. EPA has complied IAQ information, curricula and lesson plan ideas at: www.epa.gov/iaq/schools/teachers.html



Environmental Topics and Resources (cont'd)

Water Conservation / Green Storm Water Management

Georgia is experiencing a historic drought. At the same time, Atlanta's population is growing rapidly, putting more demand on the rain that we do receive. It is critical to conserve every drop of water that we can and to try to manage the rain that does fall on-site; we need it here in Atlanta - no use sending it to the storm sewers!

Project Ideas:

- There are many things that can be done to conserve drinking water (www.dca.state.ga.us/water_conservation).
- We can use green storm water management (also known as green infrastructure) techniques to collect the water that falls on our property.
- You could build and decorate rain barrels and use the water for landscaping or washing cars?
- Maybe even build a rain garden to collect the water that falls and allow it to soak into the ground (http://cfpub.epa.gov/npdes/home.cfm?program_id=298)!

Agriculture and School Gardens

Do you know where your food comes from? Most likely, it traveled over 1,500 miles, and used extensive amounts of energy, water, pesticides and fertilizers to reach your plate. However, by growing our own food and buying from local farmers markets, we can make more sustainable food choices.

Project Ideas:

- Plant an organic school garden (www.kidsgardening.org/) – and use a rain barrel to provide it with water. School gardens can be integrated into the educational curriculum to teach children not only about plants, but about other subjects as well. Gardens can also teach about history, economics, poetry, science, and math.
- Use food waste to generate compost for the garden (www.epa.gov/epaoswer/non-hw/composting/by_compost.htm).
- Take trips to local farms and farmers markets or have farmers talk to classes to teach the importance of sustainable agriculture. See the Local Food Guide at www.georgiaorganics.org.
- Create a recipe book about healthy snacks that use local ingredients. Talk to your principal and food service providers at school about buying local foods.
- Try eating only food grown within 100 miles of your house for a day or a week and write about your experiences. See georgiaorganics.org or www.foodroutes.org.

Native Landscaping / Beautification / Habitat Restoration

Traditional landscaping with turf grass is economically and environmentally costly. However, native plants provide a beautiful, hardy, drought resistant, and low maintenance landscape while benefiting the environment (www.epa.gov/epaoswer/non-hw/green/owners.htm). By replacing concrete and turf grass with a garden or natural area, we improve air and water quality, and provide beautification and habitat benefits. The University of Illinois at Urbana Champaign's Landscape and Human Health Laboratory has also found that a green setting reduces attention deficit and hyperactivity disorder (ADHD) symptoms (www.lhhl.uiuc.edu/adhd.htm). Their current research is exploring the effects of schoolyard nature on a child's capacity to learn. Going green is a win-win!

Project Ideas:

- Plant a school or recreation center garden.
- Make a site more attractive and help bring back a piece of urban ecological habitat. Educate others on the benefits.
- Learn more and teach others about the plants native to Georgia by visiting the Georgia Native Plants Society website (www.gnps.org/). The schoolyard gardening resources section provides extensive information (www.gnps.org/SCHOOL2.HTM).



Calculators

When appropriate to the project, applicants should try to quantify the environmental benefits achieved. The following calculators may be useful:

Individual Emissions Calculator:

——> http://epa.gov/climatechange/emissions/ind_calculator.html

GHG Emissions and Energy Savings from different solid waste management scenarios:

——> http://epa.gov/climatechange/wycd/waste/calculators/Warm_Form.html

Environmental Benefits of Recycling:

——> www.nerc.org/documents/environmental_benefits_calculator.html

Ecological Footprint Calculator:

——> www.myfootprint.org

Atlanta Area Resources

Georgia Green and Health Schools ——> www.greenandhealthy.org

Clean Air Campaign ——> www.cleanaircampaign.com/

Georgia Native Plants Society www.gnps.org

Georgia Organics ——> www.georgiaorganics.org/

Water Smart ——> www.watersmart.net/

U.S. Environmental Protection Agency Resources

Publications from the United States Environmental Protection Agency (EPA) can be downloaded or ordered, free of charge.

——> www.epa.gov/nscep/

Publications specific for teachers:

——> www.epa.gov/teachers/order-publications.htm

K-12 Lesson Plans from Earth Day Network and Redefining Progress

These lesson plans have been created by **Earth Day Network** and **Redefining Progress** as an additional resource to help you in your classroom on Earth Day or any day:

——> www.earthday.net/programs/teachers/default.aspx

——> www.rprogress.org/education/lesson_plans.htm

Other Notable Organizations and Resources:

Center for Ecoliteracy ——> www.ecoliteracy.org/index.html

Cloud Institute for Sustainability Education ——> www.sustainabilityed.org/index.html

Sustainability Education Guide ——> ceres.ca.gov/tcsf/seg/seg.pdf

Green Schools Initiative ——> www.greenschools.net/

Roots and Shoots ——> www.rootsandshoots.org/

Sustainability Education Handbook Resource Guide for k-12 teachers:

——> www.urbanoptions.org/SustainEdHandbook/index.htm



The Stepping Lightly in Atlanta Awards Contest can be aligned with many of the Georgia Performance Standards. Some suggestions are listed below.

Kindergarten – Grade 12

SKCS1, S1CS1, S2CS1, S3CS1, S4CS1, S5CS1, S6CS1, S7CS1, S8SCI, S9CSI

Students will be aware of curiosity, honesty openness and skepticism in science and will exhibit traits in their own efforts to understand how the world works.

SKCS5, S1CS5, S2CS5, S3CS5, S4CS5, S5CS5

Students will communicate ideas and activities clearly.

Grade 2

S2E3. Students will observe and record changes in their surroundings and infer the causes of the changes.

Grade 3

S3L1. Students will investigate the habitats of different organisms and the dependence of organisms on their habitat.

- a. Differentiate between habitats of Georgia (mountains, marsh/swamp, coast, Piedmont, Atlantic Ocean) and the organisms that live there.
- b. Identify features of green plants that allow them to live and thrive in different regions of Georgia.
- c. Identify features of animals that allow them to live and thrive in different regions of Georgia.
- d. Explain what will happen to an organism if the habitat is changed.

S3L2. Students will recognize the effects of pollution and humans on the environment.

- a. Explain the effects of pollution (such as littering) to the habitats of plants and animals.
- b. Identify ways to protect the environment.
 - Conservation of resources
 - Recycling of materials

Grade 4:

S4L1. Students will describe the roles of organisms and the flow of energy within an ecosystem.

- a. Identify the roles of producers, consumers, and decomposers in a community.
- b. Demonstrate the flow of energy through a food web/food chain beginning with sunlight and including producers, consumers, and decomposers.
- c. Predict how changes in the environment would affect a community (ecosystem) of organisms.
- d. Predict effects on a population if some of the plants or animals in the community are scarce or if there are too many.



Georgia Performance Standards (cont'd)

Grade 5:

S5L4. Students will relate how microorganisms benefit or harm larger organisms.

- a. Identify beneficial microorganisms and explain why they are beneficial.
- b. Identify harmful microorganisms and explain why they are harmful.

Grade 6:

S6E6. Students will describe various sources of energy, and with their uses, and conservation.

Grade 7:

S7L4. Students will examine the dependence of organisms on one another and their environments.

- a. Demonstrate in a food web that matter is transferred from one organism to another and can recycle between organisms and their environments.
- b. Explain in a food web that sunlight is the source of energy and that this energy moves from organism to organism.
- c. Recognize that changes in environmental conditions can affect the survival of both individuals and entire species.
- d. Categorize relationships between organisms that are competitive or mutually beneficial.
- e. Describe the characteristics of Earth's major terrestrial biomes (i.e. tropical rain forest, savannah, temperate, desert, taiga, tundra, and mountain) and aquatic communities (i.e. freshwater, estuaries, and marine).

Grade 8:

S8P2. Students will be familiar with the forms and transformations of energy.

Grades 9-12:

Biology

SB2. Students will assess the dependence of all organisms on one another and the flow of energy and matter within their ecosystems.

- a. Investigate the relationships among organisms, populations, communities, ecosystems, and biomes.
- b. Explain the flow of matter and energy through ecosystems by
 - Arranging components of a food chain according to energy flow.
 - Comparing the quantity of energy in the steps of an energy pyramid.
 - Explaining the need for cycling of major nutrients (C, O, H, N, P).
- c. Relate environmental conditions to successional changes in ecosystems.
- d. Assess and explain human activities that influence and modify the environment such as global warming, population growth, pesticide use, and water and power consumption.
- e. Relate plant adaptations, including tropisms, to the ability to survive stressful environmental conditions.
- f. Relate animal adaptations, including behaviors, to the ability to survive stressful environmental conditions.

Physical Science

SPS7. Students will relate transformations and flow of energy within a system.

- a. Identify energy transformations within a system (e.g. lighting of a match).

Chemistry

SC7. Students will characterize the properties that describe solutions and the nature of acids and bases.



Georgia Performance Standards (cont'd)

Environmental Science

- SEV1. Students will investigate the flow of energy and cycling of matter within an ecosystem and relate these phenomena to human society.**
- SEV2. Students will demonstrate an understanding that the Earth is one interconnected system.**
- SEV3. Students will describe stability and change in ecosystems.**
- SEV4. Students will understand and describe availability, allocation and conservation of energy and other resources**
- SEV5. Students will recognize that human beings are part of the global ecosystem and will evaluate the effects of human activities and technology on ecosystems.**

Anatomy and Physiology

- SAP4. Students will analyze the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.**
 - d. Examine various conditions that change normal body functions (e.g. tissue rejection, allergies, injury, diseases and disorders) and how the body responds.

Earth Systems

- SES6. Students will explain how life on Earth responds to and shapes Earth systems**

Physics

- SP3. Students will evaluate the forms and transformations of energy.**

Social studies

- SS1E2. The student will explain that people have to make choices about goods and services because of scarcity.**
Social Studies information processing skills (Grades K-12): Identify issues and/or problems and alternative solutions

- SSUSH24. The student will analyze the impact of social change movements and organizations of the 1960s.**

- e. Explain Rachel Carson and Silent Spring, Earth Day, the creation of the EPA, and the modern environmentalist movement.

- SSWG4. The student will describe the interaction of physical and human systems that have shaped contemporary Sub-Saharan Africa.**

- SSWG8. The student will describe the interaction of physical and human systems that have shaped contemporary Canada and the United States.**

- g. Analyze how transportation and communications improvements led to the growth of industry in the United States and the consequences of such growth, especially environmentally, for both Canada and the United States.



These lesson plans have been created by **Earth Day Network** and **Redefining Progress** as an additional resource to help you in your classroom on Earth Day or any day! Go to any of the websites below to download the lesson plans in PDF format. Also be sure to check out our **website links**:

——> www.redefiningprogress.org/newprograms/sustIndi/education/k-12lessonplans.shtml#weblinks for more information!

This text and following materials have been posted on the City of Atlanta website with permission from

——> Earth Day Network, www.earthday.net and

——> Redefining Progress, www.redefiningprogress.org.

For your convenience, we have provided Picture Files as a supplement for **Food and You**, **The Trash We Pass**, and **Have and Have-Not**.

——> Picture Files, www.redefiningprogress.org/newprograms/sustIndi/education/picturefiles.shtml.

Food and You

Designed to incorporate environmental education into general math and science classes for elementary school (K-5th), this lesson encourages students to think about where their food comes from, the food production process and the byproducts associated with their favorite foods.

——> <http://redefiningprogress.org/newprograms/sustIndi/education/k-12pdf/foodandyou.pdf>

Farm to School

This website provides a variety of lessons on insects, plants, seeds, and soil for all ages. The Growing Minds Program in North Carolina is a model farm to school program.

——> <http://growing-minds.org/lessons.php>

The Trash We Pass

This lesson brings environmental education to middle school (4–7th grade) social studies, math, and science classes by asking students to have fun analyzing garbage and recycling options.

——> <http://redefiningprogress.org/newprograms/sustIndi/education/k12pdf/thetrashwepass.pdf>

Have and Have-Not

This lesson incorporates environmental education in middle school (7–9th grade) social studies, geography, math, and economics classes by helping students gain a perspective on different consumption habits in developing and developed countries and the effect that mass consumption has on the ecological footprint of a country and an individual.

——> <http://redefiningprogress.org/newprograms/sustIndi/education/k-12pdf/haveandhavenot.pdf>

Sustainable Dining

Designed for lower high school (7–10th grade) economics, home economics, and general education classes, students will learn about sustainably produced groceries as a valuable and environmentally friendly option for grocery shopping.

——> <http://redefiningprogress.org/newprograms/sustIndi/education/k-12pdf/sustainabledining.pdf>

Renewable Energy

In this lesson targeting high school history, science, and math classes, students will analyze the use of energy in their every day lives and consider the advantages and disadvantages of environmentally friendly renewable energy sources.

——> <http://redefiningprogress.org/newprograms/sustIndi/education/k-12pdf/renewableenergy.pdf>

Ecological Footprint Quiz

An Ecological footprint Quiz is a tool that can be used to estimate the impact each of us has on the planet. The quiz is populated with data such as the impacts of fuel usage and dietary choices so that all you need to provide are answers to a series of basic lifestyle questions to arrive at your ecological footprint and how many planets would be required if everyone lived the way you live.

——> Redefining Progress & Earth Day Network www.myfootprint.org